UNITED STATES PATENT AND TRADEMARK OFFICE

HL

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/787,677	01/03/2002	Henry Yue	PF-0590 USN	7579

22428 7590 09/13/2004

FOLEY AND LARDNER
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER	
LOCKARD, JON MCCLELLAND	
ART UNIT	**PAPER NUMBER**
1647	

DATE MAILED: 09/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/787,677	YUE ET AL.	
	Examiner	Art Unit	
	Jon M Lockard	1647	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-20 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) 1-20 are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-6, 9-15, and 19 (each in part), in so far as they are drawn to polypeptides of SEQ ID NO:1, pharmaceutical compositions comprising the polypeptide of SEQ ID NO:1, polynucleotides of SEQ ID NO:5, vectors, host cells, methods of recombinantly producing the polypeptide of SEQ ID NO:1, and methods of treatment comprising administering the polypeptide of SEQ ID NO:1.

Group II, claim(s) 7-8 (each in part), in so far as they are drawn to methods of detecting the polynucleotide of SEQ ID NO:5

Group III, claim(s) 16 (in part), in so far as it is drawn to antibodies of SEQ ID NO:1.

Group IV, claim(s) 17 (in part), in so far as it is drawn to agonists of the polypeptide of SEQ ID NO:1.

Group V, claim(s) 18 (in part), in so far as it is drawn to antagonists of the polypeptide of SEQ ID NO:1.

Group VI, claim(s) 20 (in part), drawn to methods of treatment comprising administering an antagonist of the polypeptide of SEQ ID NO:1.

Group VII, claim(s) 1-2 and 15 (each in part), drawn to polypeptides of SEQ ID NO:2 and pharmaceutical compositions comprising the polypeptide of SEQ ID NO:2.

Group VIII, claim(s) 3-6 and 9-14 (each in part), in so far as they are drawn to polynucleotides of SEQ ID NO:6, vectors and host cells comprising the polynucleotide of SEQ ID NO:6, and a method of recombinantly producing the polypeptide of SEQ ID NO:2.

Group IX, claim(s) 7-8 (each in part), in so far as they are drawn to methods of detecting the polynucleotide of SEQ ID NO:6.

Group X, claim(s) 16 (in part), in so far as it is drawn to antibodies of SEQ ID NO:2.

Group XI, claim(s) 17 (in part), in so far as it is drawn to agonists of the polypeptide of SEQ ID NO:2.

Group XII, claim(s) 18 (in part), in so far as it is drawn to antagonists of the polypeptide of SEQ ID NO:2.

Group XIII, claim(s) 19 (in part), in so far as it is drawn to methods of treatment comprising administering the polypeptide of SEQ ID NO:2.

Group XIV, claim(s) 20 (in part), in so far as it is drawn to methods of treatment comprising administering an antagonist of the polypeptide of SEQ ID NO:2.

Group XV, claim(s) 1-2 and 15 (each in part), drawn to polypeptides of SEQ ID NO:3 and pharmaceutical compositions comprising the polypeptide of SEQ ID NO:3.

Group XVI, claim(s) 3-6 and 9-14 (each in part), in so far as they are drawn to polynucleotides of SEQ ID NO:7, vectors and host cells comprising the polynucleotide of SEQ ID NO:7, and a method of recombinantly producing the polypeptide of SEQ ID NO:3.

Group XVII, claim(s) 7-8 (each in part), in so far as they are drawn to methods of detecting the polynucleotide of SEQ ID NO:7.

Group XVIII, claim(s) 16 (in part), in so far as it is drawn to antibodies of SEQ ID NO:3.

Group XIX, claim(s) 17 (in part), in so far as it is drawn to agonists of the polypeptide of SEQ ID NO:3.

Group XX, claim(s) 18 (in part), in so far as it is drawn to antagonists of the polypeptide of SEQ ID NO:3.

Group XXI, claim(s) 19 (in part), in so far as it is drawn to methods of treatment comprising administering the polypeptide of SEQ ID NO:3.

Group XXII, claim(s) 20 (in part), in so far as it is drawn to methods of treatment comprising administering an antagonist of the polypeptide of SEQ ID NO:3.

Group XXIII, claim(s) 1-2 and 15 (each in part), drawn to polypeptides of SEQ ID NO:4 and pharmaceutical compositions comprising the polypeptide of SEQ ID NO:4.

Group XXIV, claim(s) 3-6 and 9-14 (each in part), in so far as they are drawn to polynucleotides of SEQ ID NO:8, vectors and host cells comprising the polynucleotide of SEQ ID NO:8, and a method of recombinantly producing the polypeptide of SEQ ID NO:4.

Group XXV, claim(s) 7-8 (each in part), in so far as they are drawn to methods of detecting the polynucleotide of SEQ ID NO:8.

Group XXVI, claim(s) 16 (in part), in so far as it is drawn to antibodies of SEQ ID NO:4.

Group XXVII, claim(s) 17 (in part), in so far as it is drawn to agonists of the polypeptide of SEQ ID NO:4.

Group XXVIII, claim(s) 18 (in part), in so far as it is drawn to antagonists of the polypeptide of SEQ ID NO:4.

Group XXIX, claim(s) 19 (in part), in so far as it is drawn to methods of treatment comprising administering the polypeptide of SEQ ID NO:4.

Group XXX, claim(s) 20 (in part), in so far as it is drawn to methods of treatment comprising administering an antagonist of the polypeptide of SEQ ID NO:4.

2. The inventions listed as Groups I-VI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The polypeptides, polynucleotides, vectors, host cells, and method of producing the polypeptide of Group I, the antibodies of Group III, the agonist of Group IV, and the antagonists of Group V are structurally and functionally different chemical compounds, each of which can be made and used without the other compound. The methods of Groups I, II and VI require compounds which are functionally different from each other and each can be made and used without the other. Lack of unity is shown because these compounds lack a common utility which is based upon a common structural feature which has been identified as the basis for that common utility.

3. The inventions listed as Groups VII-XIV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The polypeptides of Group VII, the polynucleotides, vectors, and host cells of Group VIII, the antibodies of Group X, the agonists and antagonists of Groups XI and XII, respectively, are structurally and functionally different chemical compounds, each of which can be made and used without the other compound. The methods of Groups IX, XIII, and XIV require compounds which are functionally different from each other and each can be made and used without the other. Lack of unity is shown because these compounds lack a common utility which is based upon a common structural feature which has been identified as the basis for that common utility.

4. The inventions listed as Groups XV-XXII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The polypeptides of Group XV, the polynucleotides, vectors, and host cells of Group XVI, the antibodies of Group XVIII, the agonists and antagonists of Groups XIX and XX, respectively, are structurally and functionally different chemical compounds, each of which can be made and used without the other compound. The methods of Groups XVII, XXI, and XXII require compounds which are functionally different from each other and each can be made and used without the other. Lack of unity is shown because these compounds lack a common utility which is based upon a common structural feature which has been identified as the basis for that common utility.

5. The inventions listed as Groups XXIII-XXX do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The polypeptides of Group XXIII, the polynucleotides, vectors, and host cells of Group XXIV, the antibodies of Group XXVI, the agonists and antagonists of Groups XXVII and XXVIII, respectively, are structurally and functionally different chemical compounds, each of which can be made and used without the other compound. The methods of Groups XXIII, XXIX, and XXX require compounds which are functionally different from each other and each can be made and used without the other. Lack of unity is shown because these compounds lack a common utility which is based upon a common structural feature which has been identified as the basis for that common utility.

6. The inventions listed as Groups I-VI, VII-XIV, XV-XXII, and XXIII-XXX do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The compounds of Groups I-VI, the compounds of Groups VII-XIV, the compounds of Groups XV-XXII, and the compounds of Groups XXIII-XXX are structurally and functionally different chemical compounds from each other, which can be made and used without the other compounds, and the methods of using the compounds of Groups I-VI, Groups VII-XIV, Groups XV-XXII, and Groups XXIII-XXX are therefore also different methods. Lack of unity is shown because these compounds lack a common utility which is based upon a common structural feature which has been identified as the basis for that common utility.

7. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the

currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jon M. Lockard, Ph.D.** whose telephone number is **(571) 272-2717**. The examiner can normally be reached on Monday through Friday, 8:00 AM to 6:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Brenda Brumback, Ph.D.** can be reached on **(571) 272-0961**.

The fax number for the organization where this application or proceeding is assigned is **703-872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see **http://pair-direct.uspto.gov**. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866-217-9197** (toll-free).

Eileen B. O'Hara

JML
August 31, 2004

EILEEN B. O'HARA
PATENT EXAMINER